

FIG. 1
PRIOR ART

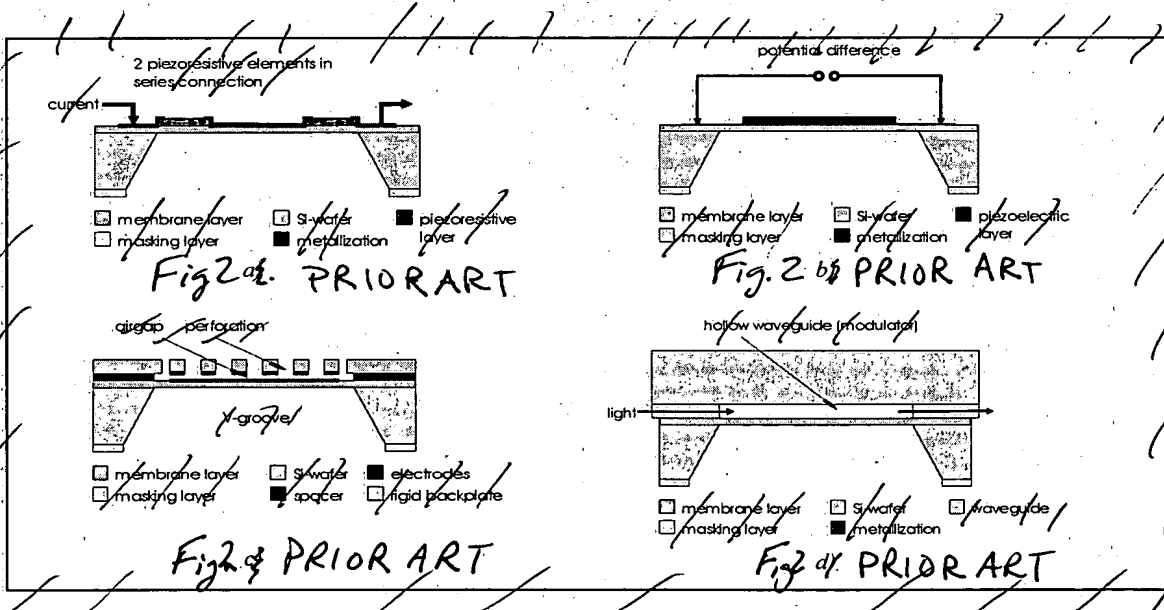
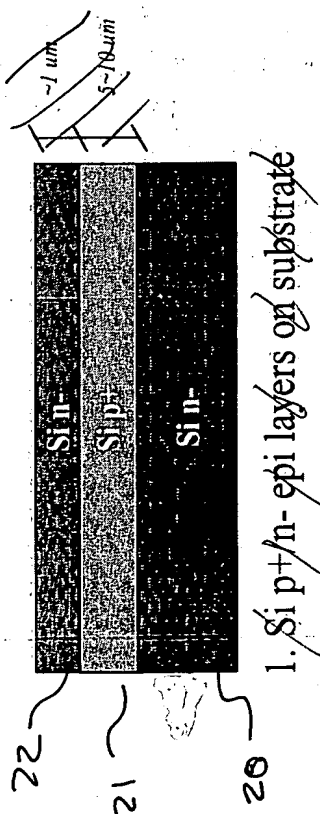


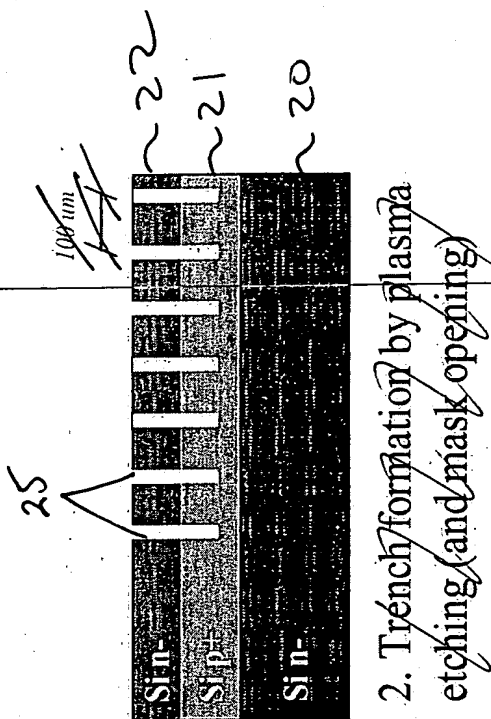
FIG. 2

10014380.121101



1. Si p+/n- epi layers on substrate

FIG. 3A-a



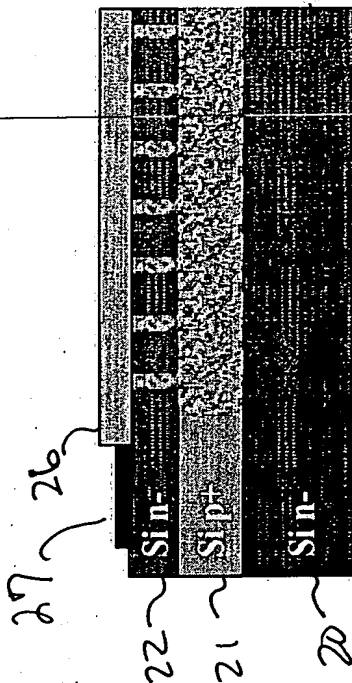
2. Trench formation by plasma etching (and mask opening)

FIG. 3B-b



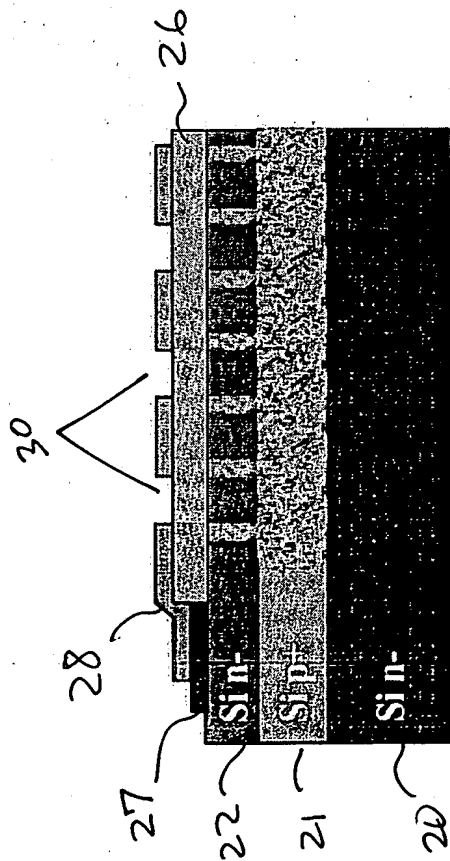
3. Si Porous formation in p+ by electrochemical attack
4. Trench/filling and surface planarization

FIG. 3C-c



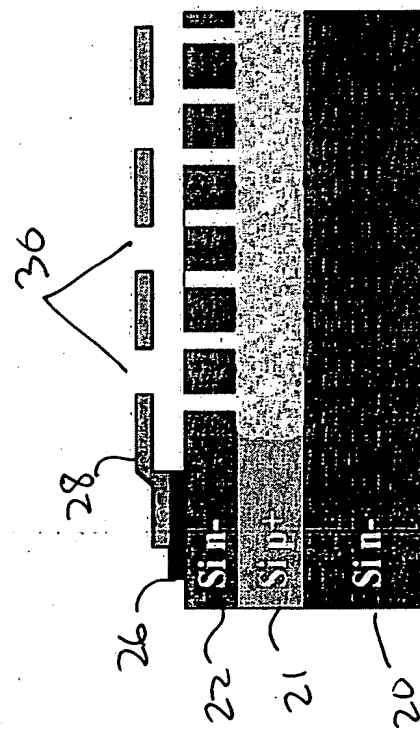
5. Deposition and patterning of the sacrificial layer
6. Nitride isolation layer

FIG. 3D-d



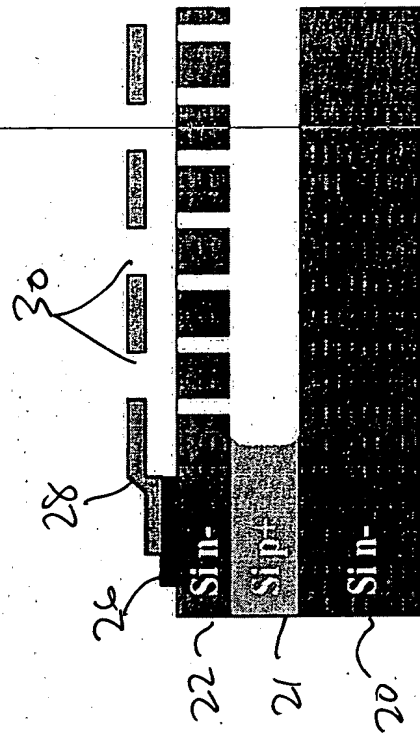
7. Polysilicon formation for backplate

FIG. 3Ee



8. Removal of the sacrificial layer (HF attack)

FIG. 3Ff



9. Si-porous Oxidation

FIG. 3Hg

10. Removal of Si-porous

FIG. 3Hh

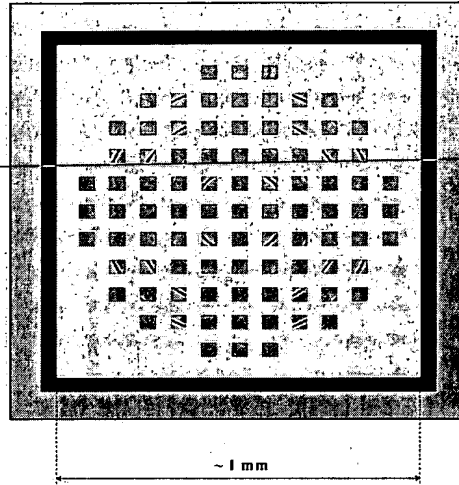


FIG. 4

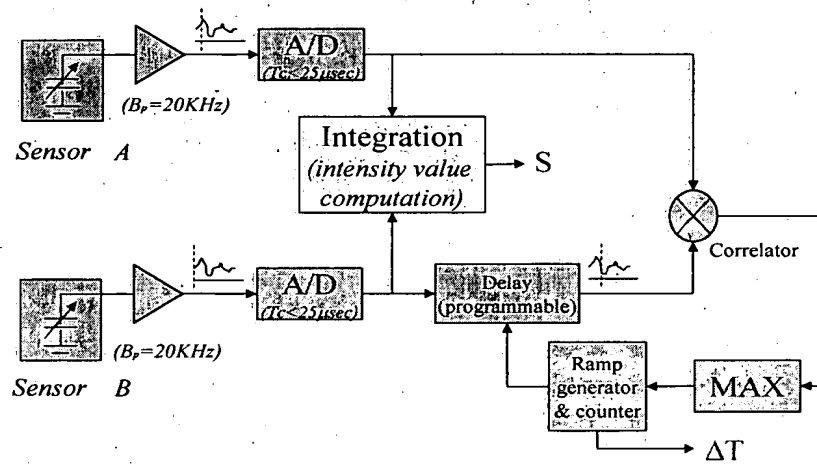


FIG. 5

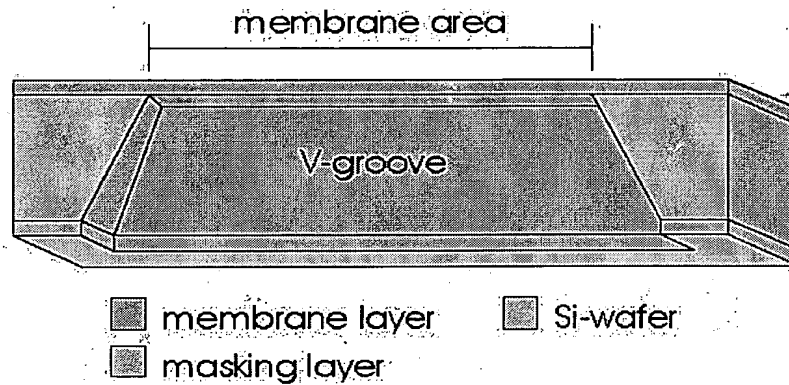


FIG. 1

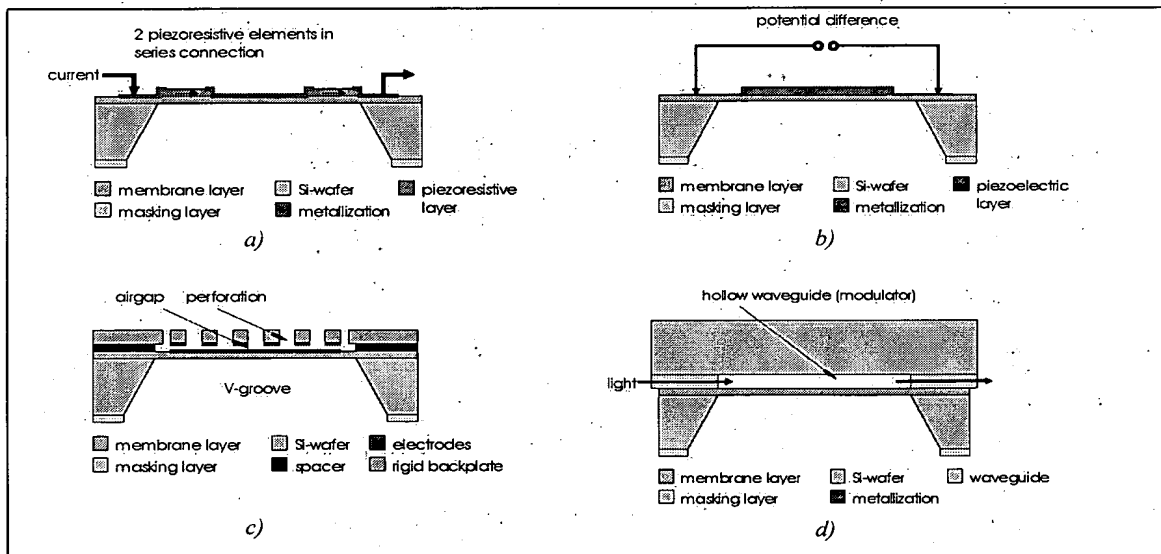
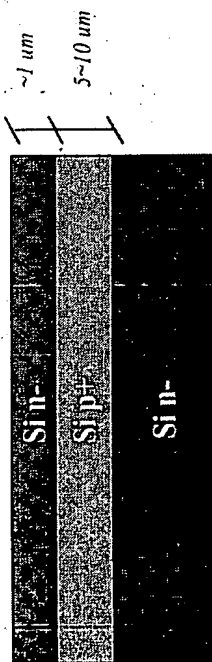
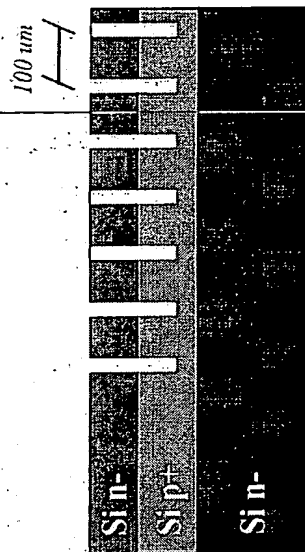


FIG. 2



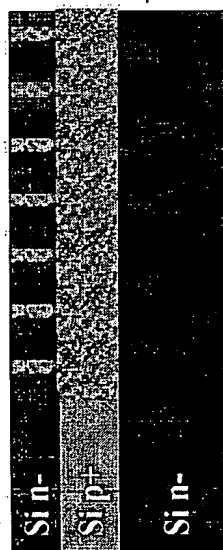
1. Si p+/n- epi layers on substrate

FIG. 3A



2. Trench formation by plasma etching (and mask opening)

FIG. 3B



3. Si Porous formation in p+ by electrochemical attack

4. Trench filling and surface planarization

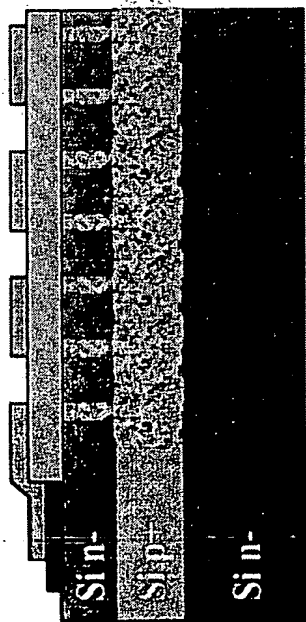
FIG. 3C



5. Deposition and patterning of the sacrificial layer

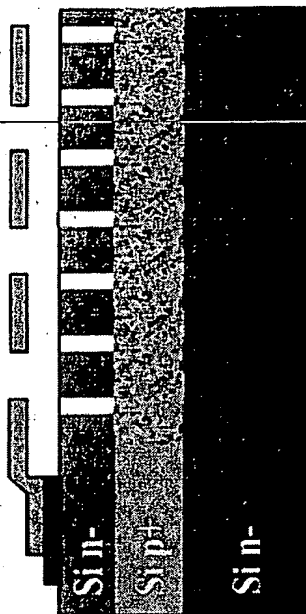
6. Nitride isolation layer

FIG. 3D



7. PolySi n+ formation for backplate

FIG. 3E



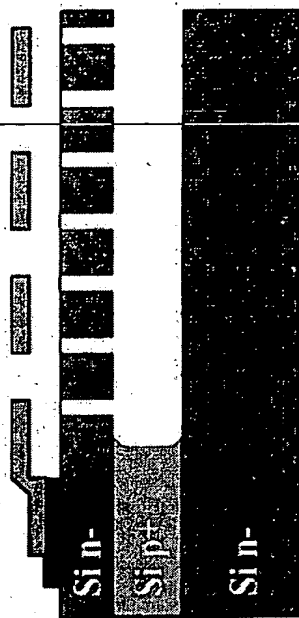
8. Removal of the sacrificial layer (HF attack)

FIG. 3F



9. Si-porous Oxidation

FIG. 3G



10. Removal of Si-porous

FIG. 3H

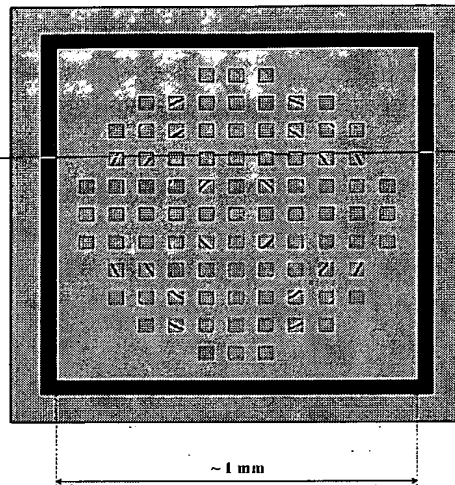


FIG. 4

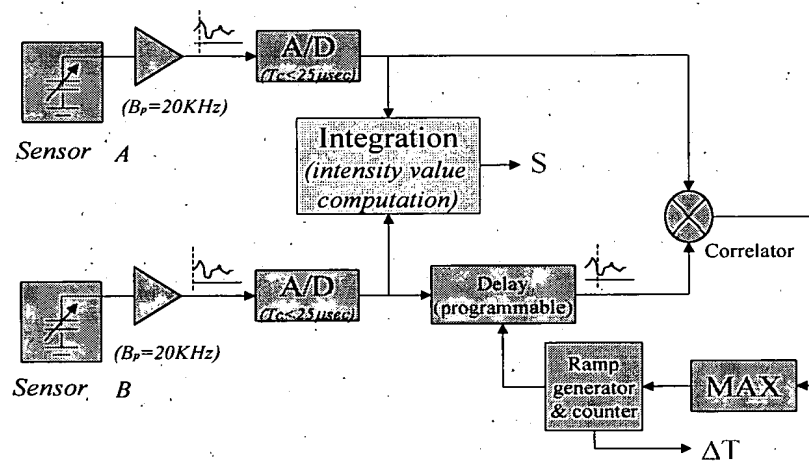


FIG. 5